

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JESSE CHIENHUA SHAN

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Appeal 2006-1516  
Application 10/025,002  
Technology Center 1700

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Decided: March 29, 2007

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Before BRADLEY R. GARRIS, CHARLES F. WARREN, and  
PETER F. KRATZ, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal which involves claims 1, 2, 4-6, 8, 9, 11-13, and 16.<sup>1</sup> We have jurisdiction under 35 U.S.C. §§ 6 and 134.

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<sup>1</sup> The Appellant acknowledges that claims 10 and 20 also are under rejection (Br. 3) but affirmatively states that “[t]he claims on appeal are claims 1, 2, 4-6, 8, 9, 11-13, and 16” (*id.*). Moreover, in response to the Brief, the Examiner states that the rejections of claims 10 and 20 “have not been withdrawn by the examiner, but . . . are not under review on appeal because they have not been presented for review in the [A]ppellant’s [B]rief.”

We AFFIRM-IN-PART.

With reference to the Appellant's drawing, the claims on appeal define a method comprising the steps of forming a lower cladding layer 103 having a waveguide support 201, the support being raised relative to the lower cladding layer, forming a core material 301 onto the waveguide support and forming an upper cladding layer 401 over the core material. The Appellant's claimed method is illustrated by claims 1, 4, and 9 which read as follows:

1. A method comprising:

forming a lower cladding layer, said lower cladding layer having at least one waveguide support, said at least one waveguide support being raised relative to said lower cladding layer such that said at least one waveguide support has a waveguide support width dimension and a waveguide support height dimension;

forming a core material onto said at least one waveguide support; and forming an upper cladding layer over said core material.

4. The method of Claim 1 wherein said forming of said core material is by using a high density plasma chemical vapor deposition (HDPCVD) process.

9. The method of Claim 1 wherein the steps of forming said core material and forming said upper cladding layer are *in situ* with each other.

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(Answer 3). Significantly, the Appellant has not disagreed with this statement by the Examiner, for example, via a Reply Brief. These and other aspects of the record convince us that claims 10 and 20, though pending and under rejection, are not before us on this appeal.

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The references set forth below are relied upon by the Examiner in the § 102 and § 103 rejections before us:

Bruce	US 5,119,460	Jun. 2, 1992
Bazylenko	US 6,154,582	Nov. 28, 2000

Claims 1, 2, 4-6, 8, 9, 11-13, and 16 are rejected under the second paragraph of 35 U.S.C. § 112 on the grounds that “it is unclear what is meant by the waveguide support ‘being raised’ relative to the lower cladding layer [as required by independent claims 1 and 11]” (Answer 5).

Claims 1, 2, 4-6, 8, 9, 11-13, and 16 are rejected under the first paragraph of 35 U.S.C. § 112 as failing to comply with the written description requirement because “there is no support for the waveguide support ‘being raised’ . . . relative to the lower cladding layer [as required by independent claims 1 and 11]” (Answer 4).

Claims 1, 2, 5, 8, and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bruce.

Finally, claims 4, 6, 11-13, and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bruce in view of Bazylenko. The Examiner describes his position as follows:

Claim 4 requires the use of a HDPCVD process during the forming of the core material. Bruce does not teach this. Bruce only mentions using “low-pressure chemical vapor deposition, according to methods that are well-known in the art” (col. 3, lines 41-43).

Bazylenko teaches a low-pressure (col. 3, lines 1-2; col. 2, lines 54-57; 6, lines 15-20 and claim 5) CVD process (HDPCVD) that has various advantages such as it is “simpler”

(col. 3, line 15). Bazylenko also discloses that such can be used to make optical components on their own (col. 10, lines 7-9). It would have been obvious to use the Bazylenko deposition technique as the Bruce low-pressure technique - for the advantages that Bazylenko teaches.

Claim 6: Bruce does not teach how to create the shape of sub-layer 30. Figures 6a and 6b (and the associated text) of Bazylenko which disclose the patterning and etching. Col. 8, lines 15-19 discloses the depositing. It would have been obvious to use the Bazylenko shaping method because some sort of forming step is needed and since it is compatible with the rest of the Bazylenko deposition steps.

Answer 7-8.

#### OPINION

For the reasons which follow, we will sustain only the above-noted § 102 rejection of claims 1, 2, 5, and 8. The other rejections before us on this appeal will be reversed.

#### The § 112, 2d ¶, Rejection

The definiteness requirement set forth in § 112, 2d ¶, focuses on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the rest of the specification. *Union Pacific Resources Co. v. Chesapeake Energy Corp.*, 236 F.3d 684, 692, 57 USPQ2d 1293, 1297 (Fed. Cir. 2001).

We agree with the Appellant that the independent claim phrase “being raised” would be understood by an artisan when read in light of the Specification disclosure. As disclosed at Specification 6 and shown in Figure 2, an etching step results in formation of waveguide supports 201

which are elevated or raised relative to the lower cladding layer 103 when viewed in cross-section. We recognize that independent claims 1 and 11 do not characterize the “being raised” feature as existing after an etching step which forms the waveguide supports. However, this fact would have been readily appreciated by an artisan who had read the Specification. Moreover, the lack of this characterization in the appealed claims relates to breadth, not indefiniteness.

In light of the foregoing, we reverse the Examiner’s §112, 2d ¶, rejection of claims 1, 2, 4-6, 8, 9, 11-13, and 16.

#### The § 112, 1st ¶, Rejection

Under the written description requirement, the Examiner bears the burden of presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims. *In re Alton*, 76 F.3d 1168, 1175, 37 USPQ2d 1578, 1583 (Fed. Cir. 1996).

Here, the written description requirement is said to be violated due to the above-discussed claim phrase “being raised.” In effect, the Examiner’s reasoning in support of this § 112, 1st ¶, rejection corresponds to the reasoning in support of his § 112, 2d ¶, rejection. However, because the phrase “being raised” does not render the claims indefinite as explained earlier, analogously the phrase does not render the claims non-compliant with the written description requirement.

We also reverse, therefore, the § 112, 1st ¶, rejection of claims 1, 2, 4-6, 8, 9, 11-13, and 16.

The § 102 Rejection

Anticipation requires that all of the elements and limitations of the claims are disclosed, either expressly or inherently, in a single prior art reference. *Electro Scientific Ind. Inc. v. General Scanning Inc.*, 247 F.3d 1341, 1350, 58 USPQ2d 1498, 1504 (Fed. Cir. 2001).

We agree with the Examiner's finding that Bruce expressly or inherently discloses each of the limitations recited in appealed independent claim 1. The Appellant argues that the Bruce patent does not disclose a waveguide support that is raised above the level of the lower cladding layer (Br. 7). This is incorrect. Just as Appellant's Figure 2 shows waveguide supports 201 being raised relative to lower cladding area 103, likewise Bruce's Figure 1 shows passive core 30 (i.e., waveguide support) being raised relative to lower cladding layer 20.

On the other hand, we agree with the Appellant that dependent claim 9 is not disclosed, either expressly or inherently, in the Bruce reference. As explained by the Appellant and contrary to the Examiner's apparent belief, the claim 9 phrase "*in situ*" requires that the steps of forming the core material and the upper cladding layer are performed in the same process chamber (Specification 11-12; Br. 7-8). Bruce neither expressly nor inherently discloses performing such steps in the same process chamber.

For the above-stated reasons, we affirm the Examiner's § 102 rejection of claims 1, 2, 5, and 8 but reverse the § 102 rejection of claim 9 over Bruce.

#### The § 103 Rejection

In holding an invention obvious in view of a combination of references, there must be some suggestion, motivation, or teaching in the prior art that would have led a person of ordinary skill in the art to select the references and combine them in the way that would produce the claimed invention. *Karsten Manuf. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1385, 58 USPQ2d 1286, 1293 (Fed. Cir. 2001).

In this rejection, the Examiner's proposed combination of the applied prior art teachings is based on (1) Bruce's disclosure of depositing passive core 30 by low-pressure chemical vapor deposition and (2) Bazylenko's alleged disclosure of a low-pressure chemical vapor deposition process which includes the here-claimed HDPCVD process such that "[i]t would have been obvious to use the Bazylenko deposition technique as the Bruce low-pressure technique - for the advantages that Bazylenko teaches" (Answer 7-8). However, the Examiner's obviousness position inappropriately relies upon Bruce's aforementioned disclosure of depositing passive core 30 by a low-pressure chemical vapor deposition. Both the Examiner and the Appellant consider this passive core 30 as corresponding to the here-claimed waveguide support (Answer 6; Br. 7). However, the Appellant's claim requirement for using an HDPCVD process relates to

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forming the here-claimed core material (i.e., waveguide) which the Examiner regards as corresponding to Bruce's active core (or waveguide) 40 (Answer 6).

For these reasons, if Bazylenko's deposition technique were used as the low-pressure technique disclosed by Bruce in accordance with the Examiner's proposal (Answer 8), the result would be formation of Bruce's passive core 30 (i.e., waveguide support) rather than use of an HDPCVD process to form Bruce's active core 40 (i.e., waveguide or core material) as required by rejected dependent claim 4 and independent claim 11. It is appropriate to emphasize that Bruce's disclosure of a low-pressure deposition is nowhere taught by Patentee as applicable to formation of his active core 40 (i.e., waveguide). Instead, Bruce teaches depositing active core 40 by a sputtering technique (col. 4, ll. 39-40), and this sputtering technique is never characterized by Bruce as a low-pressure chemical vapor deposition.

In essence, the Examiner's § 103 rejection is deficient because the proposed combination of the applied prior art teachings is premised on the Examiner's incorrect focus on Bruce's passive core 30 as though it corresponds to the Appellant's claimed core material (i.e., waveguide). Instead, Bruce's passive core 30 corresponds to the here-claimed waveguide support. It follows that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 4, 11-13, and 16 which require that the core material be formed by an HDPCVD process. The Examiner

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also has failed to establish a prima facie case of obviousness with respect to dependent claim 6. Although this claim does not contain the aforementioned requirement, the Examiner's rejection of it depends upon his deficient proposal for combining Bruce and Bazylenko (Answer 8).

Because the Examiner has failed to carry his burden of establishing a prima facie case of obviousness, we reverse the § 103 rejection of claims 4, 6, 11-13, and 16 as being unpatentable over Bruce in view of Bazylenko.

#### SUMMARY

The decision of the Examiner is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

**AFFIRMED-IN-PART**

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Warren, *Administrative Patent Judge*, Concurring:

I join the panel's decision with the exception of the statement of the claims on appeal (*see above* p. 1 and note 1).

The record shows that in the Final Action mailed August 30, 2004, the Examiner stated "Claim(s) 1, 2, 4-6, 8-13, 16 and 20 is/are rejected" (Final Action, Office Action Summary, ¶ 6). In the Final Action, the Examiner rejected, *inter alia*, all of the claims under 35 U.S.C. § 112, first paragraph, written description requirement, and under 35 U.S.C. § 112, second paragraph; claim 10 under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) over Bruce; and claims 1, 4, 6, 11 through 13, 16, and 20 under 35 U.S.C. § 103(a) over Bruce in view of Bazylenko (Final Action 2, 3, 5, and 7).

Appellant filed the Notice of Appeal on November 29, 2004. Appellant filed a Brief on January 24, 2005. The Examiner issued a Notification of Non-Compliant Appeal Brief on February 14, 2005, citing, *inter alia*, non-compliance with 37 C.F.R. § 41.37(c)(1)(vi) and (vii) (Notification of Non-Compliant Appeal Brief ¶¶ 5 and 6).

In the Substitute Brief filed March 14, 2005, under "Status Of Claims," Appellant states "[t]he claims on appeal are claims 1, 2, 4-6, 8-9, 11-13 and 16," omitting claims 10 and 20 (Substitute Br. 3). Under "Grounds Of Rejection To Be Reviewed On Appeal," Appellant states, *inter alia*, all of the grounds of rejection as stated in forth in the Final Action without omitting claims 10 and 20 from the state of any ground (*id.* 5).

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Under “Argument,” with respect to the ground of rejection under § 112, first paragraph, written description requirement, Appellant argues claim 10 with specificity, mentioning no other claim (Substitute Br. 5-6). With respect to the ground of rejection under § 112, second paragraph, Appellant “agrees with the Examiner . . . and will yield on Claim 10 [and Claim 20] as to allowability at this juncture,” but “reserves the right to pursue” the claims in a continuing application “following the conclusion of this appeal” (*id.* 6).

With respect to the ground of rejection of claim 10 under § 102(b) over Bruce, Appellant “is conceding with respect to claim 10 on other grounds” and “[t]hus, Claim 10 will be taken up following conclusion of this proceedings” (Substitute Br. 8). Appellant did not address the alternative ground of rejection of claim 10 under § 103(a) over Bruce, which is a separate ground of rejection (*id.*). See, e.g., *In re Spada*, 911 F.2d 705, 707 n.3, 15 USPQ2d 1655, 1657 n.3 (Fed. Cir. 1990). With respect to the ground of rejection under § 103(a) over Bruce in view of Bazyleenko, Appellant argues “Claims 1, 4, 6, 11-13 and 16,” omitting claim 20 without explanation (Substitute Br. 8-9).

In the Answer mailed November 29, 2005, under “Grounds of Rejection Not On Review,” the Examiner states:

The following grounds of rejection have not been withdrawn by the examiner, but they are not under review on appeal because they have not been presented for review in the appellant’s brief.

The rejection of claims 10 and 20. See page 6, lines 6-13 of the Brief which indicates claims 10 and 20 are not allowable.

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Answer 3. Page 6, lines 6-13, of the Substitute Brief sets forth Appellant's statements with respect to the ground of rejection of claims 10 and 20 under § 112, second paragraph. The Examiner advances no ground of rejection of claims 10 and only the ground of rejection of claim 20 under § 103(a) over Bruce in view of Bazyleenko (Answer 7).

Applicant appeals "from the decision of the Primary Examiner" at least "twice rejecting" any claim. 35 U.S.C. § 134(a). "An appeal, when taken, must be taken from the rejection of all claims under rejection which the applicant . . . proposes to contest." 37 C.F.R. § 41.31(c) (September 2004). The Brief must include, *inter alia*, "[a] statement of the status of all the claims in the proceedings . . . and an identification of those claims that are being appealed;" "[a] concise statement of each ground of rejection presented for appeal;" and "[t]he contentions of appellant with respect to each aground of rejection presented for review." 37 C.F.R. §§ 41.37(c)(1)(iii), (vi), and (vii) (September 2004). "An appellant's brief must be responsive to every ground of rejection stated by the examiner that the appellant is presenting for review in the appeal" and "[i]f a ground of rejection stated by the examiner is not addressed in the appellant's brief, that ground of rejection will be summarily sustained by the Board." Manual of Patent Examining Procedure (MPEP) 1205.02 (8th ed., Rev. 3, August 2005). "A withdrawal of the appeal as to some of the claims on appeal operates as an authorization to cancel those claims from the application . . . and the appeal continues as to the remaining claims," and "[t]he withdrawn

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claims will be cancelled from an application by the direction of the examiner at the time of the withdrawal of the appeal as to these claims.” MPEP § 1215.03 (8th ed., Rev. 3, August 2005).

I am of the view that by filing the Notice of Appeal, Appellant appealed from the decision of the Primary Examiner with respect to all of the claims under rejection in the last Office action in which at least one claim was at least twice rejected. That Office action in this Application is the Final Action. Subsequent to the Notice of Appeal, Appellant stated that the appealed claims did not include claims 10 and 20 but contested one ground of rejection with respect to claims 10 and 20 and conceded the contest with respect to claim 10 on one other ground. Indeed, Appellant requested review of and argued the ground of rejection under § 112, first paragraph, enablement requirement, specifically arguing claim 10 and not omitting claim 20. Appellant was responsive to this ground of rejection as to these claims, and thus, this ground ordinarily is reviewed on appeal. Appellant further requested review of the ground of rejection under § 112, second paragraph, specifically conceding the issue with respect to claims 10 and 20. Appellant also requested review of the ground of rejection of claim 10 under § 102(b) over Bruce, specifically conceding the issue. These grounds, which Appellant was responsive to even though conceding, would ordinarily be sustained by the Board if advanced on appeal by the Examiner. Appellant did request review of the rejection of claim 10 under § 103(a) over Bruce and of claim 20 under § 103(a) over Bruce in view of

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Bazylenko. However, Appellant did not respond by presenting contentions with respect to or conceding the issue in these grounds of rejection.

Accordingly, I am of the opinion that, procedurally, Appellant appealed from the decision of the Primary Examiner finally rejecting 1, 2, 4 through 6, 8 through 13, 16, and 20, and by not responding to a ground of rejection of claim 10 and a ground of rejection of claim 20, effectively withdrew the appeal with respect to claims 10 and 20.

Thus, this panel should dismiss the appeal as to claims 10 and 20 and continue the appeal with respect to claims 1, 2, 4 through 6, 8, 9, 11 through 13, and 16. The Examiner should cancel claims 10 and 20 as directed in MPEP § 1215.03 after disposition of this appeal.

clj

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